Robotic Space Exploration: Moon, Mars and Beyond

Public Lecture Series, July 6 - July 28, 2005

7:30 pm, Wednesday, July 6
NASA Goddard Visitor Center Auditorium

The Challenges and Excitement of Space Robotics: Exploring the Solar System

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Abstract

Space robotics is a remarkable, expanding new frontier of exploration--from the moon, to Mars, and beyond. Far distant from earth, such robots operate in extremes of hot and cold, in unpredictable and often very rough environments. Communication with earth operators is rare and robots must have on-board perception, navigation, and control skills. Future exploration will encompass not only the Mars surface, but also that of the earth moon, distant moons of other planets, utilizing aerial, surface, and sub-surface mobile platforms of increasing computer intelligence. New designs will include multiple cooperating robot teams and human-interactive telerobotic systems, in which robots will perform increasingly human-like tasks. We will describe these developments, and the exciting future they pose for both engineering innovation and science understanding.

Short Biographical Sketch

Dr. Paul S. Schenker is Manager, Robotics Space Exploration Technologies Program, at the Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California. His responsibilities encompass the strategic development of technical capabilities for future NASA robotic and human-robotic missions. His prior assignments at JPL include manager of JPL's mobility/robotics line organization of about 100 people, supervisor of two related robotics groups, and principal investigator for many projects spanning advanced teleoperation, telerobotic dexterous control, autonomous mobility, multi-robot systems, and medical robotics. He has authored about 130 papers in these technical areas and has contributed to several major NASA missions through this work, including the currently operative Mars Exploration Rovers. Dr. Schenker is a member of the AAAI, IEEE, OSA, and SPIE, and an elected Fellow and 1999 President of the last.

Admission is free. Please RSVP online to reserve a spot.
http://university.gsfc.nasa.gov/robotics/
For questions contact us by phone at 301-286-2893/ 1893 or by email at LRana@pop600.gsfc.nasa.gov

"Robotic Space Exploration: Moon, Mars and Beyond" is a public lecture series in conjunction with the 2005 NASA Robotics Internship Program.